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E1J JGM

(56) Documents Cited

GB 2253873 A GB 2249335 A GB 2046819 A  
EP 0683300 A1 DE 029612701 U DE 029611862 U  
DE 019514124 A1 FR 002745318 A1 FR 002732400 A1  
FR 002730001 A1

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INT CL<sup>7</sup> E04H 9/14, E06B 7/16 7/22 7/23 7/26 9/00  
Online: WPI, EPODOC, JAPIO

(54) Abstract Title

**Domestic flood barrier**

(57) A flood barrier comprises a plate 1 to be secured to the building fabric around an aperture to be protected, preferably by bolts or screws inserted through holes 5. The plate carries a seal 2 around its periphery for contact with the building aperture. A further inflatable seal 3 may be provided for additional sealing which is inflated via valve 4. The barrier is suitable for doors (figures 4 and 5), windows (figure 6 and 7) and air bricks (figures 8 and 9).

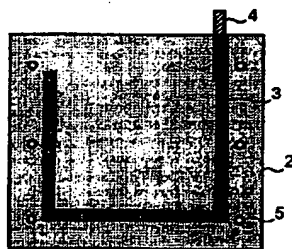


FIG. 3

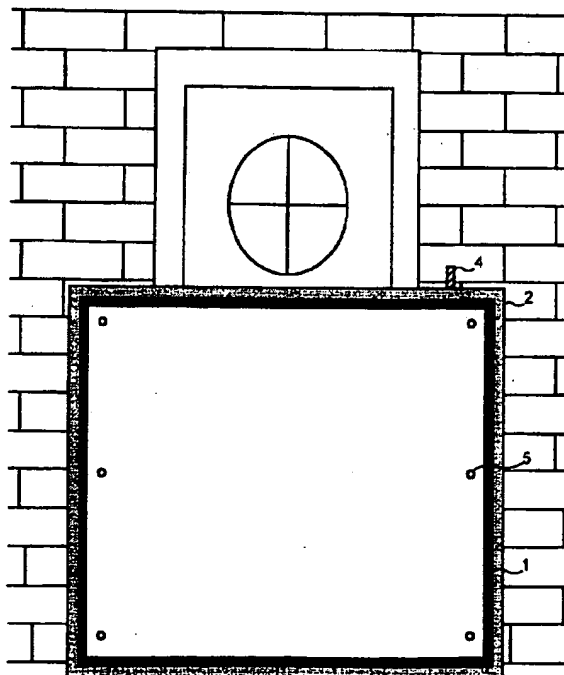


FIG. 5

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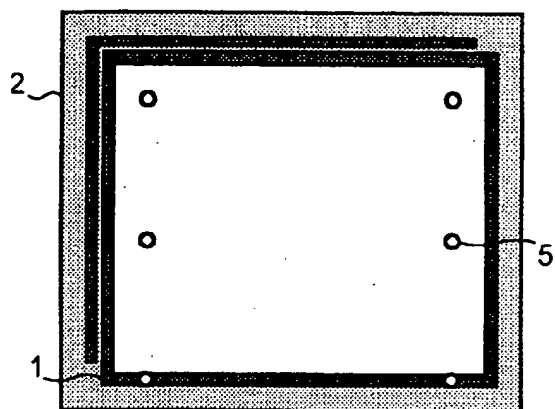


FIG. 1

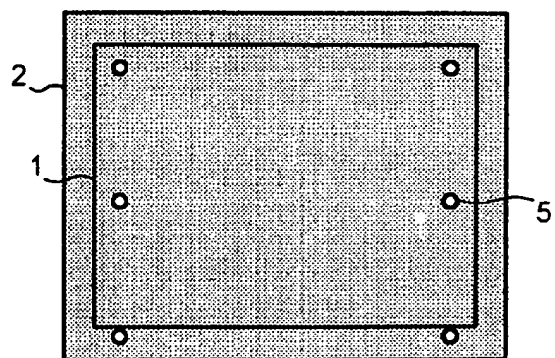


FIG. 2

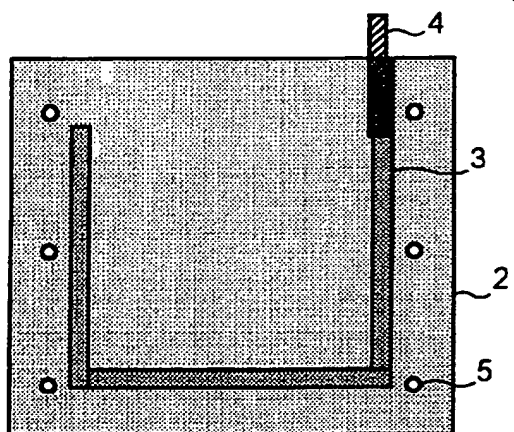


FIG. 3

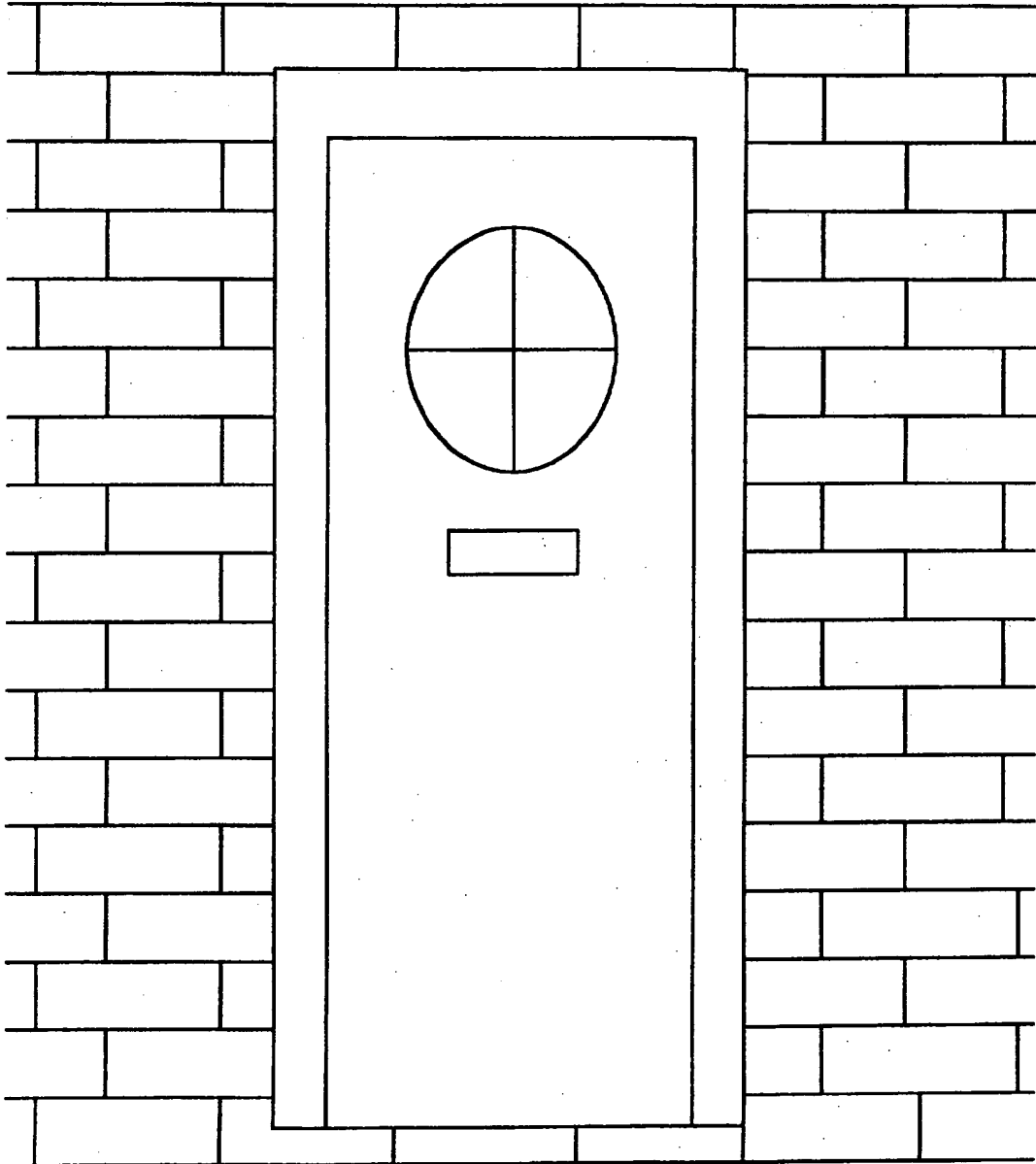


FIG. 4

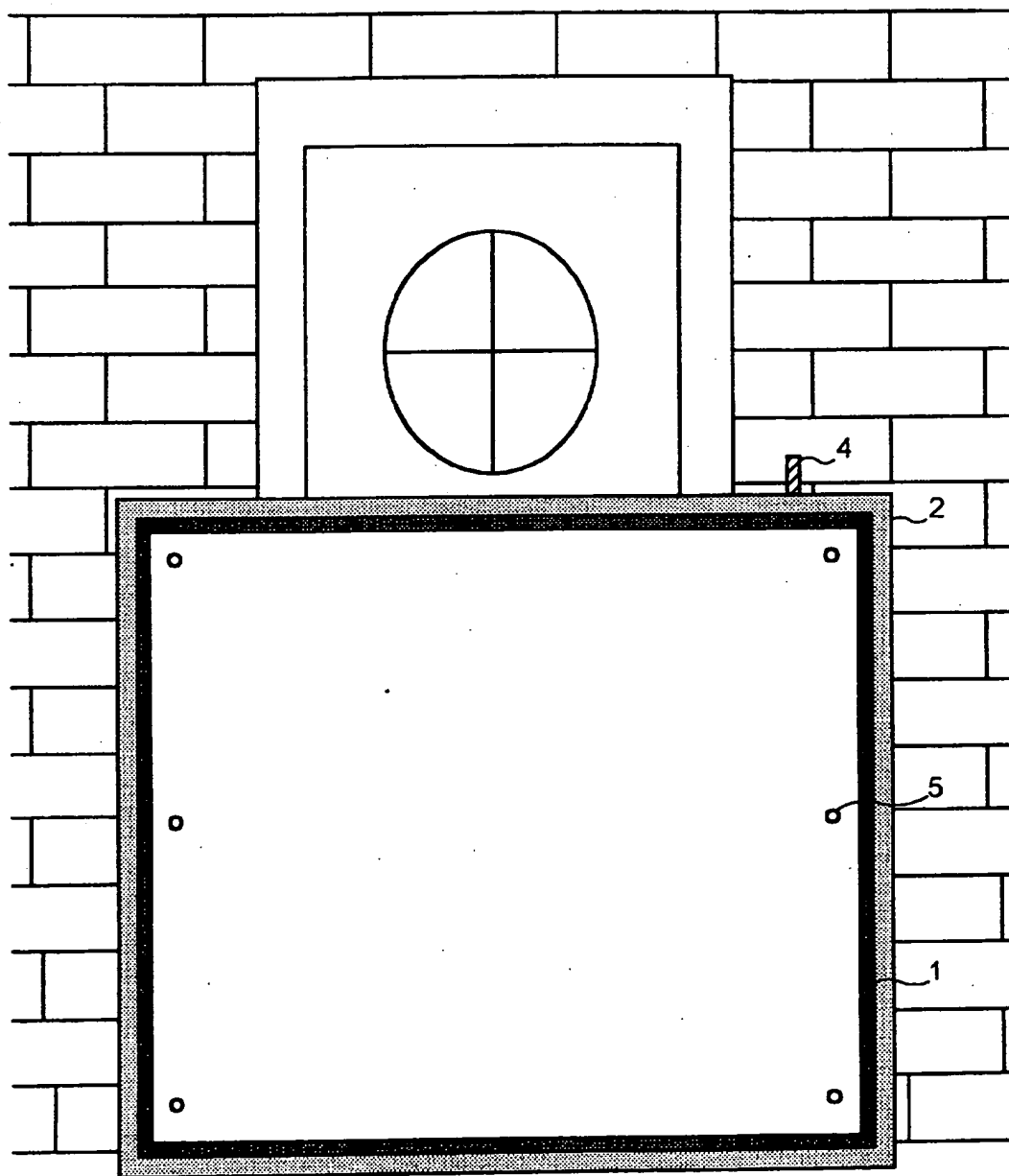


FIG. 5

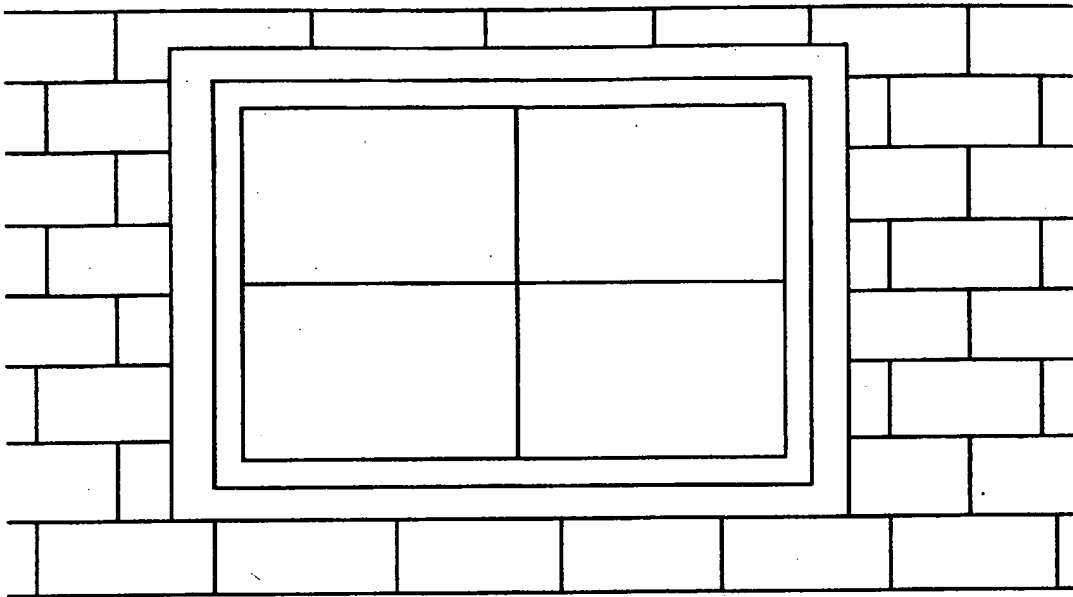


FIG. 6

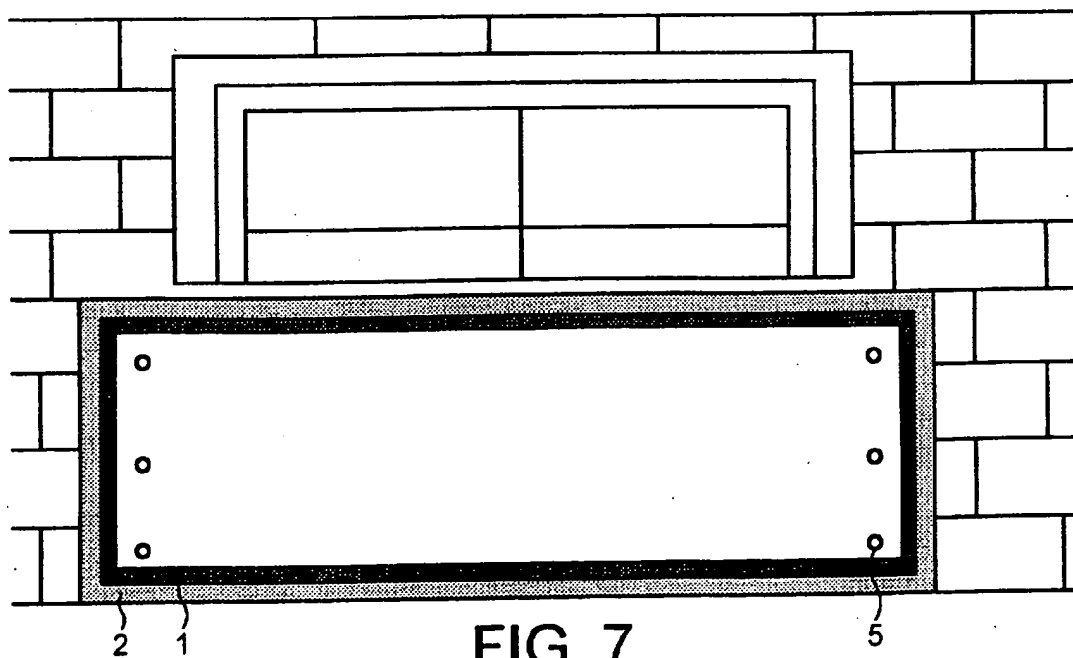


FIG. 7

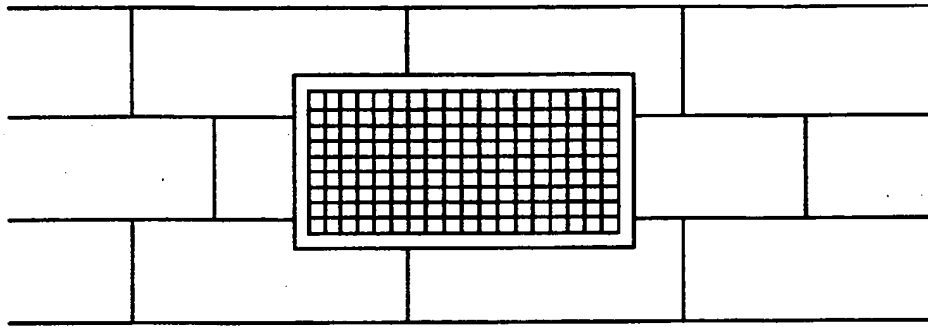


FIG. 8

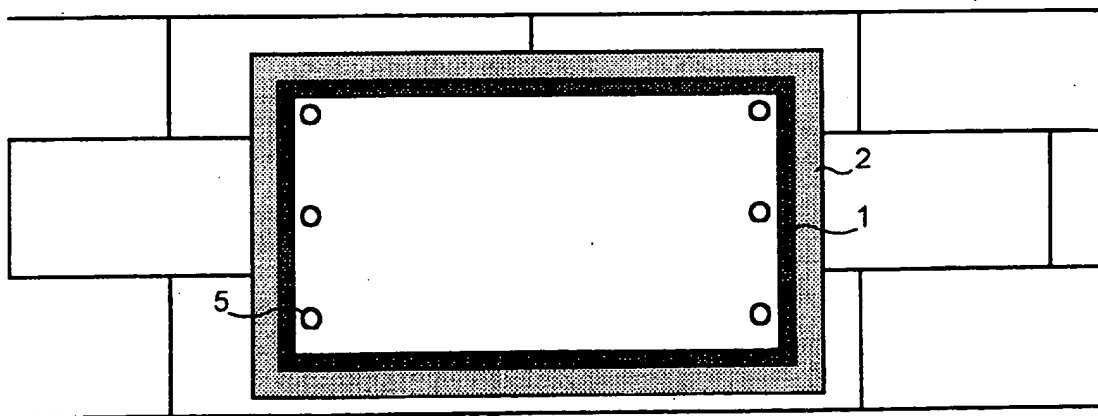


FIG. 9

## **Reusable Water Resisting Barrier**

This invention relates to a natural flood water resisting barrier which can be reusable.

When there is a natural flood caused by rain or overflowing rivers, the internal rooms of residential dwellings and business premises are at high risk from physical damage caused by the in flow of the flood waters. The physical damage caused by flooding to the interior of the dwelling or business may be considerable. Flood water contains silt, sewerage and dirt, which adds to the damage and distress. The specification allows for protection against flood water up to 4 feet. Additional protection can be provided if required. The main entry points for the bulk of flood water into a dwelling or business are through the doorways and air bricks. Traditionally people have resorted to sand bags to protect their property which has proved to be an unsatisfactory solution.

According to the invention there is a reusable water resisting barrier which is quickly installed from prior survey and installation, of metal or other suitable material of different sizes. On the back of the reusable water resisting barrier is a seal which when secured to the fabric of the building resists water. In certain situations there may also be an additional inflatable seal. The reusable water resisting barrier is secured to cover any apertures - for example: doors, windows, air bricks - to prevent the ingress of flood water.

When fitted, to cove a door aperture the barrier rests on the bottom edge of the protruding seal which then forms a water resisting joint.

A special embodiment of the invention will be described by way of example with reference to the accompanying drawings in which :-

Fig 1 Shows the front of the reusable water resisting barrier with the barrier overlaid on the seal.

Fig 2 Shows the rear of the secured seal concealing the reusable water resisting barrier.

Fig 3 Shows the rear of the secured seal concealing the reusable water resisting barrier plus an inflatable seal.

Fig 4 Shows a door aperture.

Fig 5 Shows the reusable water resisting barrier fitted to a door aperture.

Fig 6 Shows a window aperture.

Fig 7 Shows the reusable water resisting barrier fitted to a window aperture.

Fig 8 Shows an air brick.

Fig 9 Shows the reusable water resisting barrier fitted to an air brick aperture.

Referring to the drawings the reusable water resisting barrier comprises a metal plate 1 or other suitable material, on the reverse of which is secured a water resisting seal 2. The seal 2 may comprise rubber, foam, plastics or other suitable material and may be secured to the plate 1 by means of adhesive, glue, screws or other suitable means.

Individual reusable water resisting barriers are secured to the fabric of a building to cover apertures - such as a doorway Fig 4 before, and Fig 5 after fitting; a window Fig 6 before, and Fig 7 after fitting; an air brick Fig 8 before, and Fig 9 after fitting.

Individual reusable water resisting barriers are usually secured by (but not restricted to) bolts or screws which are inserted through the drilled holes 5 and secured to the dwelling or business accommodation walls generally bolted to the brickwork. As the bolts are tightened the protruding seals 2 become water resisting.

All the reusable water resisting barriers have a seal 2 on the reverse to make them water resisting. In some circumstances it may require an additional inflatable seal 3 which will be inflated by exposed valve 4.

It is a requirement that the reusable water resisting barrier is properly fitted and secured to the fabric of the building before it is needed - it can then be removed for storage by the owner until required. When flooding is anticipated the reusable water resisting barrier can be quickly fitted. It can be removed and stored after the flood has passed.



## Claims

1. The reusable water resisting barrier comprising a metal plate or other suitable material of various sizes; which has a seal or seals which will make it water resisting, is secured to a building.
2. A reusable water resisting barrier claimed in Claim 1 prefitted for rapid installation whenever flooding is imminent.
3. A reusable water resisting barrier claimed in Claim 1 or Claim 2 wherein a water resisting protruding seal is provided on the rear of the plate.
4. A reusable water resisting barrier which rests on a protruding seal as claimed in Claim 3 which provides a water resisting joint on the bottom edge.
5. A reusable water resisting barrier as claimed in Claim 2, Claim 3 or Claim 4 wherein in addition to the seal a further inflatable seal may be provided in order to improve its water resisting ability.
6. A reusable water resisting barrier as claimed in Claim 5 wherein the inflatable seal can be inflated by external means after the reusable water resisting barrier has been fitted.



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Application No: GB 9824619.2  
Claims searched: 1-6

Examiner: John Rowlatt  
Date of search: 27 June 2001

## Patents Act 1977 Search Report under Section 17

### Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.S): E1J: JGM.

Int Cl (Ed.7): E04H: 9/14.

E06B: 7/16, 7/22, 7/23, 7/26, 9/00.

Other: Online: WPI, EPODOC, JAPIO.

### Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
X,Y	GB 2253873 A (FAIRHURST) - see figures 1-6.	X: 1-4 Y: 5 & 6
X,Y	GB 2249335 A (EDWARDS) - see figure 3.	X: 1-4 Y: 5 & 6
X,Y	GB 2046819 A (BOWEN) - see figures sheet 3.	X: 1-4 Y: 5 & 6
X,Y	EP 0683300 A1 (VISSING) - see figure 1.	X: 1-4 Y: 5 & 6
X,Y	DE 29612701 U1 (MARSCHALL) - see figure sheet 2.	X: 1-6 Y: 5 & 6
X,Y	DE 29611862 U1 (ZISCHKE) - see figure 2.	X: 1-4 Y: 5 & 6
X,Y	DE 19514124 A1 (RUDSINSKY) - see all figures.	X: 1-4 Y: 5 & 6
X,Y	FR 2745318 A1 (WOLSKI) - see figures sheet 1.	X: 1-4 Y: 5 & 6
X,Y	FR 2732400 A1 (GAQUERE) - see figures 2 & 3.	X: 1-4 Y: 5 & 6

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.



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Category	Identity of document and relevant passage	Relevant to claims
X,Y	FR 2730001 A1 (BUREL) - see figures 1 & 2.	X: 1-4 Y: 5 & 6

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Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.